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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/802,642	03/17/2004	Masayoshi Shono	52187/DBP/A400	3955
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CHRISTIE, PARKER & HALE, LLP PO BOX 7068 PASADENA, CA 91109-7068			EXAMINER BARKER, MATTHEW M	
			ART UNIT	PAPER NUMBER
			3662	

DATE MAILED: 01/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/802,642

Applicant(s)

SHONO, MASAYOSHI

Examiner

Matthew M. Barker

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) 3-5, 6/3, 7-9, 10/3, 11/3, and 12-33 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 6, 10 and 11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Species I in the reply filed on 12/15/2005 is acknowledged.
2. Claims 3-5, 6/3, 7/3, 8-9, 10/3, 11/3, 12-33 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 12/15/2005.

Specification

3. The Disclosure is objected to because the specification is inconsistent with the drawings. For example, page 3, line 31-page 4, line 12. See the 35 U.S.C. 112, second paragraph rejection in paragraph 7 below for a complete explanation.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.
5. Claims 2, 6/2, 10/2, 11/2 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in

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the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 2 claims a single switch controller that controls a plurality of switches (page 27, line 16). The drawings (Figure 7) and specification (page 16, line 4, page 18, lines 14-17) disclose a separate switch controller for each switch. Therefore, the specification is not enabling for the claimed configuration where one switch controller controls a plurality of switches.

For the purposes of examination, claim 2 is read to include a plurality of switch controllers, one controlling each of the plurality of switches as presented in Figure 7.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 10/1-2 and 11/1-2 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 10 and 11 are inconsistent with the drawings and specification.

Claims 10 and 11 contain language referencing "a leading edge of a received reflected wave". Figure 4D defines a "received reflected wave" as the portion of the actual reflected wave that coincides with the receive timing interval (Figure 4C). For example, the received reflected wave of figure 8A occupies from t_0 to t_1 . Claim 10, lines 7-10 recite "a mode for selecting an IF signal corresponding to a portion occupying up to a point about 1/3 from a leading edge of a received reflected wave". Because t_0 is the

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"leading edge of a received reflected wave", the claimed portion occupies merely the first 1/3 from t_0 to t_1 . However, with reference to Figure 9A and page 17, lines 29-30, the actual portion for the invention occupies from t_0 to t_1 . Thus, the "portions" as claimed in both claims 10 and 11 are inconsistent with those set forth in the drawings and specification.

It appears the desired reference edge is actually the leading edge of the receive timing interval (see Figure 8D), not the "leading edge of a received reflected wave".

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Ninomiya (US Pat. No. 5,940,029).

Ninomiya discloses the claimed transmit-receive FM-CW apparatus (Figure 19) including a mixer (19), switch (14) on an input side of the mixer, and a switch controller (16) for controlling the switch and selecting an IF signal (column 7, lines 11-16) for supply to the mixer.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ninomiya as applied to claim 1, and in further view of Mogi (US Pat. No. 5,159,707).

Ninomiya discloses a transmit-receive FM-CW radar apparatus, including a plurality of mixers (19₁-19_n) and a single switch (14) for supplying an IF signal to the mixers in different modes, but does not disclose a plurality of switches nor a plurality of switch controllers, one for each switch.

Mogi discloses a receive apparatus (Figure 1) including a plurality of switches (12-1, 12-2) and a switch controller (13-1, 13-2) for each switch. It would have been obvious to modify Ninomiya to include multiple switches and switch controllers as taught by Mogi in order to allow for simultaneous processing of multiple signals.

12. Claim 6/1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ninomiya as applied to claim 1, and in further view of Lucchi (US Pat. No. 4,370,652).

Ninomiya discloses a transmit-receive FM-CW radar apparatus, but fails to disclose the claimed short, mid, and long-range modes. Lucchi teaches a receiver apparatus including short and long range modes of operation (column 8, lines 3-21). It would have been obvious to modify the apparatus of Ninomiya to include different modes of operation as taught by Lucchi. It would have been further obvious to modify the apparatus of Ninomiya to include a mid-range mode. As explained by Lucchi, the

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motivation for the modifications would have been to obtain an optimum balance of resolution and sensitivity for targets at various ranges.

13. Claim 6/2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ninomiya in view of Mogi as applied to claim 2, and in further view of Lucchi (US Pat. No. 4,370,652).

Ninomiya as modified discloses a transmit-receive FM-CW radar apparatus, but fails to disclose the claimed short, mid, and long-range modes. Lucchi teaches a receiver apparatus including short and long range modes of operation (column 8, lines 3-21). It would have been obvious to further modify the apparatus of Ninomiya to include different modes of operation as taught by Lucchi. It would have been further obvious to modify the apparatus of Ninomiya to include a mid-range mode. As explained by Lucchi, the motivation for the modifications would have been to obtain an optimum balance of resolution and sensitivity for targets at various ranges.

Allowable Subject Matter

14. Claims 10/1-2 and 11/1-2 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 1st and 2nd paragraphs, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Komatsu, Suzuki, Okubo, Bell, Reed, Isaji, Flacke, Shono, and Urabe disclose related radar systems.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew M. Barker whose telephone number is (571)272-3103. The examiner can normally be reached on M-F, 7:30 AM-4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Tarcza can be reached on (571)272-6979. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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